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IN THE CLAIMS

Cancel claims 1-8 and add new claims 9-21 as follows.

9. (New) A process for microbial leaching of a sulfidic material wherein bacteria of the genus *Thiobacillus* participate in the leaching process, and wherein the process comprises the steps of:
- a) preparing an aqueous leaching fluid comprising at least one carbon-containing compound, wherein the at least one carbon-containing compound is selected from the group consisting of cysteine, methionine, and homocysteine, and derivatives thereof,
- optionally, bacteria of the genus *Thiobacillus*, and optionally one or more salts;
- b) contacting said fluid with the sulfidic material for a length of time sufficient to achieve leaching, and
- wherein the bacteria contacts the sulfidic material either as a component of the leaching fluid, or subsequently after removal of the leaching fluid, or both.
10. (New) The process of claim 9 wherein the leaching fluid includes the microorganisms.
11. (New) The process of claim 9 wherein the microorganisms are added after removal of the leaching fluid.
12. (New) The process of claim 11 wherein the microorganisms are added in a discharging fluid.

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13. (New) The process of claim 9 wherein, the total concentration of the one or more amino acids or derivatives thereof is equal to or less than, about $8 \times 10^{-3} \text{M}$.
14. (New) The process of claim 9 wherein the pH of the leaching fluid is greater than about 1, and less than about 4.
15. (New) The process of claim 14, wherein the pH of the leaching fluid is about 1.5 to 2.
16. (New) The process of claim 9, wherein the microorganisms are *Thiobacillus ferrooxidans*.
17. (New) The process of claim 9, wherein the sulfidic material comprises one or more sulfide ores.
18. (New) The process of claim 9, wherein the sulfidic material is pyrite.
19. (New) The process of claim 9, wherein the amino acid derivatives are either amides or esters.
20. (New) The process of claim 13, wherein the total concentration of the amino acids or derivatives thereof is from about $8 \times 10^{-4} \text{M}$ to about $8 \times 10^{-5} \text{M}$.
21. (New) A process for microbial leaching of a sulfidic material, wherein the process comprises the steps of:
- a) preparing an aqueous leaching fluid comprising at least one carbon-containing compound, wherein the at least one carbon-containing compound is selected from the group consisting of cysteine, methionine, and homocysteine, and derivatives thereof,